

METHOD OF PARTIALLY EMBEDDING NON-WOVEN FIBER
MAT TO REINFORCING FIBERS IMPREGNATED WITH A
THERMOPLASTIC RESIN AND COMPOSITION THEREFROM

ABSTRACT OF THE DISCLOSURE

A composite sheet has a layer of reinforcing fiber impregnated with a thermoplastic resin. Non-woven fiber is partially impregnated with the thermoplastic resin to provide a bondable surface that can be subsequently bonded to other materials, such as plastics, foam and metal. Such an apparatus may be formed by heating and compressing the thermal plastic resin against the reinforcing fibers of the base layer and against the non-woven fibers, such that the base layer may be fully impregnated while the non-woven fibers may be partially impregnated. A thermal plastic resin must have a melting point less than either the reinforcing fibers of the base layer, or the non-woven fibers.